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09/457,895	12/10/1999	GERMANO CARONNI	6502.0287	8187

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EXAMINER

MCARDLE, JOSEPH M

ART UNIT PAPER NUMBER

2132

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/457,895	CARONNI ET AL.
Examiner	Art Unit	
Joseph McArdle	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on \_\_\_\_.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_ is/are allowed.

6) Claim(s) 1-20 is/are rejected.

7) Claim(s) \_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4-9</u> .	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4, 9, 12, 13, 14, 15, 17, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Carter (5987506). In regards to claim 1, Carter discloses in column 4, lines 15-36, a computer network which is comprised of two individual computer networks, each of which contains a plurality of computers containing storage devices. Carter also discloses that the plurality of computers communicate with each other over separate channels based upon which network the computers reside in. This meets one of the limitations of claim 1, which calls for having a distributed system with a network containing nodes that communicate over a first channel and nodes that communicate over a second channel. Carter further describes in column 4, lines 15-36, how each of the file systems in the individual networks can be accessed by the computers (or nodes as described by column 6, lines 3-8) residing on each individual network. This meets another limitation of claim 1, which calls for allowing access to storage devices for nodes communicating over a first channel and nodes communicating over a second channel. Carter further discloses in column 11, lines 57-

61, an access control list, which contains security access parameters that control file system access. Carter then discloses in Figure 5, column 18, lines 44-48, and in column 18, line 67 through column 19, lines 1-4, a computer network that includes a plurality of nodes, each having a CPU and an operating system that includes functions for accessing the memory of computer systems based on requests for data as described in column 11, lines 51-56. This meets another limitation of claim 1, which calls for having a processor run an operating system, that handles requests for data and controls access to file systems which communicate over first and second communication channels.

3. In regards to claim 4, Carter discloses in column 7, lines 10-28, a design in which network nodes associated with a particular network are able to access certain memory spaces according to mappings that are maintained in a structured store of data. This meets the limitation of claim 4, which calls for maintaining a mapping between file systems and nodes contained within a particular communications channel in order to allow the nodes access to the file systems.

4. In regards to claims 9,13,14, 15, and 17, Carter discloses in column 11, lines 57-61, an access control list, which contains security access parameters that control file system access pertaining to which particular network the node operates on. Carter then discloses in Figure 5, column 18, lines 44-48, and in column 18, line 67 through column 19, lines 1-4, a computer network that includes a plurality of nodes, each having a CPU and an operating system that includes functions for accessing the memory of computer systems based on requests for data as described in column 11, lines 51-56. This meets

the limitations of claims 9, 13, 14, 15, and 17, which call for receiving requests for data and authorizing those requests by determining which communications channels the node is communicating over.

5. In regards to claims 12 and 20, Carter discloses in Figure 5, column 18, lines 44-48, and in column 18, line 67 through column 19, lines 1-4, a computer network that includes a plurality of nodes, each having a CPU and an operating system that includes functions for accessing the memory of computer systems based on requests for data as described in column 11, lines 51-56. This meets the limitations of claims 12 and 20, which call for having a processor run an operating system, that handles requests for data and controls access to file systems which communicate over first and second communication channels.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carter in view of International Publication Number WO-9857464. Carter's design mentioned above discloses all of the aforementioned limitations set forth by claim 1. However, Carter's design does not specify that the distributed network is a private network running over a public network infrastructure. WO-9857464 discloses this exact

limitation on page 5, lines 21-23, where it states that a virtual private network is implemented over the Internet or other public network space. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the teachings of WO-9857464 into Carter's design in order to achieve a private network that runs over a public network infrastructure.

8. Claims 7, 8, 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter in view of Fabbio (5335346). In regards to claims 7 and 8, Carter's design mentioned above discloses all of the aforementioned limitations set forth by claim 1. However, Carter's design does not specify that in order to open or unlink a file system entity, a request is received from a node, which is then verified to determine if the node communicates over the same channel as the file system entity as described by claims 7 and 8. Fabbio discloses these limitations in column 7, lines 8 – 15, and in column 8, lines 49 – 51, where it is stated that when a user makes a request to retrieve or modify a data object, their credentials are checked against an access control entry in order to determine that the user or the group the user belongs to is allowed access to the data object. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Fabbio's teachings on the use of access control into Carter's design in order to achieve a design that is capable of controlling a nodes access to a file system entity.

9. In regards to claims 10 and 18, Carter's design meets all of the aforementioned limitations set forth by claims 9 and 17. However, Carter's design does not specifically mention inhibiting access to a file system entity when it is determined that the node

does not communicate over the authorized channel. Fabbio's design teaches inhibiting access to data objects based upon certain access control criteria as described in column 8, lines 59 – 60. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Fabbio's teachings on the use of inhibiting access to data objects into Carter's design in order to achieve a design that is capable of inhibiting access to file system entities based on access control criteria such as determining what channel the node is communicating over.

10. Claims 3, 11, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter in view of Argranat (5519833). Carter's design disclosed above meets all of the limitations set forth under claims 1, 9, 15, and 17. However, Carter's design makes no mention of having multiple types of devices each of which have a corresponding file type associated with it. Arganat's design teaches this limitation in column 6, lines 22-28, where it is disclosed that file nodes containing a file type that indicates what device the file is to be associated with is stored within a special directory that the operating system controls in order to associate the correct file type to a particular device. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Arganat's teachings into Carter's design in order to achieve a design that is capable of associating a particular file type to a particular device.

11. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carter in view of Gasser (5220604). Carter's design disclosed above meets all of the aforementioned limitations of claim 4. However, Carter's design does not return a list of

file system entities, which are authorized to communicate over a particular channel in response to a user request. Gasser teaches this limitation in column 4, lines 46 - 54, where an access control list is described which contains a list of all possible access privileges and the users that have those privileges. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Gasser's teachings into Carter's design in order to achieve a design that maintains and returns a list of authorized users over a certain channel in response to a user request.

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carter and Gasser as applied to claim 5 above, and further in view of Agrawal (4825354). Carter and Gasser's design disclosed above meets all of the aforementioned limitations set forth by claim 5 above. However, Carter and Gasser's design does not make use of a proc structure (as disclosed by applicants specification on page 19, lines 16 - 18) in order to determine a nodes access rights. Agrawal discloses in column 6 lines 64 - 68, column 7, lines 1 – 24, and figure 2, that a UNIX environment operates on processes which are maintained by process tables (as shown in figure 2). These process tables contain information relating to the process itself such as its status, process ID, group information, and execution information. Agrawal further discloses in column 2, lines 19 – 31, that these tables are consulted as a result of execution requests that are generated in response to a user request identifying a process to be executed. This process table disclosed by Agrawal performs the same functions as the applicants disclosed proc structure. It is also noted that the applicant's disclosure of a proc structure on page 19, lines 16 – 18 of the specification is considered as an admittance

of prior art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Agrawal's teachings into Carter and Gasser's design in order to achieve a design that utilizes a process which relies on a proc structure in order to obtain information relating to the process.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph McArdle whose telephone number is (703) 305-7515. The examiner can normally be reached on Weekdays from 8:00 am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703) 305-1830. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

*JMM*  
Joseph McArdle  
Examiner  
Art Unit 2132

jmm

*Gilberto Barron*  
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